

CLAIMS

1. A method for controlling a media server to output data at a predetermined time comprising:

inputting a program schedule into a master scheduler wherein said program schedule comprises event information;

5 processing said program schedule to create a task from said program schedule wherein said master scheduler performs said processing said program schedule;

distributing said task to a slave task scheduler;

processing said task to create a command suitable for a media server wherein said slave task scheduler performs said processing said task;

10 sending said command to said media server to retrieve data from said media server;

retrieving data from said media server in accordance with said command;

outputting said retrieved data.

2. A method according to Claim 1 wherein said media server is adapted to operate independently of said master scheduler so that said media server may continue to execute said tasks irrespective of whether said master scheduler is available at said predetermined time.

3. A method for controlling a media server to output data at a predetermined time comprising:

creating a schedule for a service wherein said schedule is comprised of schedule data;

storing said schedule data in a data model wherein said data model is adapted for a service;

5 processing said data to create a task;

distributing said task to a slave task scheduler;

processing said task and sending a command to a media server at a predetermined time.

4. A method for scheduling multimedia programs comprising:
creating a primary event in a schedule wherein said creating uses a graphical user interface;
selecting a multimedia event to associate with said primary event wherein said selecting
uses said graphical user interface;
- 5 associating said multimedia event with said primary event in said schedule wherein said
associating uses said graphical user interface;
transforming said schedule into at least one task wherein said transforming creates a task
for a media server to provide said associated multimedia event;
distributing said task to said media server;
- 10 executing said task at a predetermined time.
5. A method according to Claim 4 wherein said graphical user interface uses a grid
layout for scheduling.
6. A method according to Claim 5 wherein said selecting a multimedia event using a
graphical user interface presents a user a menu of choices.
7. A method according to Claim 5 wherein said creating of said primary event and
said associating said multimedia event with said primary event uses a cell in said
grid in said graphical user interface.
8. A method for scheduling multimedia events comprising:
creating a primary event in a schedule;
associating a supporting event with said primary event in said schedule;
processing said schedule and creating at least one task from said supporting event;

5 distributing said task to a media server wherein said media server accesses multimedia
corresponding to said supporting event;
processing said task and initiating at a predetermined time said media server to access and
distribute said multimedia.

9. A method according to Claim 8 wherein said primary event and said supporting
event are associated with a cell in said schedule.

10. A method according to Claim 8 wherein said associating said primary event and
said supporting event creates a graph wherein said primary event is a node and said
secondary event is a leaf on a graph.

11. A method according Claim 8 wherein said predetermined time includes a delta
variance.

12. A method for scheduling related events comprising:
creating a primary event in a schedule;
associating a supporting event with said primary event wherein said supporting event is a
multimedia event that will be distributed at a predetermined time and does not use

5 cue tones;
translating said supporting event into at least one task by a master scheduler;
distributing said task to a media server;
translating said task into at least one device specific command for a bit-pump at a
predetermined time;

10 sending said device specific command to said bit-pump;
processing said device specific command by said bit-pump and distributing requested data
corresponding to said supporting event.

13. A method according to Claim 12 wherein said media server is independent of the availability of said master scheduler when a task has been distributed to said media server wherein said task will execute at a predetermined time even if said master scheduler has become unavailable.
14. A method according to Claims 2 or 13 wherein a status signal is sent to the master scheduler upon the completion of said execution of said task.
15. A system for controlling a media server to output data at a predetermined time comprising:
input means for inputting a program schedule into a master scheduler wherein said program schedule comprises event information;
5 first processing means for processing said program schedule to create a task from said program schedule wherein said master scheduler performs said processing said program schedule;
distribution means for distributing said task to a slave task scheduler;
second processing means for processing said task to create a command suitable for a media
10 server wherein said slave task scheduler performs said processing said task;
sending means for sending said command to said media server to retrieve data from said media server;
retrieving means for retrieving data from said media server in accordance with said command;
15 output means for outputting said retrieved data.
16. A system for controlling a media server to output data at a predetermined time comprising:

creating means for creating a schedule for a service wherein said schedule is comprised of
schedule data;

5 storage means for storing said schedule data in a data model wherein said data model is
adapted for a service;

first processing means for processing said data to create a task;

distribution means for distributing said task to a slave task scheduler;

second processing means for processing said task and sending a command to a media server

10 at a predetermined time.

17. A system for scheduling multimedia programs comprising:

creating means for creating a primary event in a schedule wherein said creating uses a
graphical user interface;

selecting means for selecting a multimedia event to associate with said primary event

5 wherein said selecting uses said graphical user interface;

associating means for associating said multimedia event with said primary event in said
schedule wherein said associating uses said graphical user interface;

transforming means for transforming said schedule into at least one task wherein said

transforming creates a task for a media server to provide said associated multimedia
10 event;

distribution means for distributing said task to said media server;

executing means for executing said task at a predetermined time.

18. A system for scheduling multimedia events comprising:

a graphical user interface for scheduling primary and supporting events;

a master scheduler wherein said master scheduler generates tasks from said schedule;

a media server;

- 5 a distributor module wherein said distributor distributes said tasks to said media server;
said media server comprising
- a bit pump;
 - a timeline and task management module wherein said time and task management
module receives said task from said distributor module;
- 10 a task translation module to receive said task, translate said tasks into commands
and send said commands to said bit pump.

19. A method for synchronizing and propagating changes to an event comprising:
assigning an event an event identifier;
registering an event in a first table wherein said first table stores the event identifier and an
event trigger;
- 5 registering interests in a second table wherein said second table stores a procedure to
execute for said event trigger;
changing said event wherein said change generates an event trigger;
inspecting said first table for said event trigger for said event;
inspecting said second table for said procedure to execute upon said event trigger event for
- 10 said event identifier;
executing said procedure.

20. A method according to claim 19 wherein said inspecting of said first table uses said
event identifier.

21. A method according to claim 19 wherein said inspecting of said second table uses
said event identifier and said event trigger.

22. A method according to claim 19 wherein said procedure modifies a data model.

23. A system for synchronizing and propagating changes to an event comprising:
assigning means for assigning an event an event identifier;
first registering means for registering an event in a first table wherein said first table stores
the event identifier and an event trigger;

5 second registering means for registering interests in a second table wherein said second
table stores a procedure to execute for said event trigger;
changing means for changing said event wherein said change generates an event trigger;
first inspecting means for inspecting said first table for said event trigger for said event;
second inspecting means for inspecting said second table for said procedure to execute upon
10 said event trigger event for said event identifier;
executing means for executing said procedure.

24. A system according to claim 19 wherein said first inspecting means uses said event
identifier.

25. A system according to claim 19 wherein said second inspecting means uses said
event identifier and said event trigger.

26. A system according to claim 19 wherein execution of said procedure modifies a
data model.

27. A computer program embodied on a computer-readable medium for synchronizing
and propagating changes to an event comprising:
assigning code segment for assigning an event an event identifier;
first registering code segment for registering an event in a first table wherein said first table
5 stores the event identifier and an event trigger;

second registering code segment for registering interests in a second table wherein said

second table stores a procedure to execute for said event trigger;

changing code segment for changing said event wherein said change generates an event

trigger;

- 10 first inspecting code segment for inspecting said first table for said event trigger for said event;

second inspecting code segment for inspecting said second table for said procedure to

execute upon said event trigger event for said event identifier;

executing code segment for executing said procedure.

28. A computer program embodied on a computer-readable medium for controlling a media server to output data at a predetermined time comprising:

input code segment for inputting a program schedule into a master scheduler wherein said program schedule comprises event information;

- 5 first processing code segment for processing said program schedule to create a task from said program schedule wherein said master scheduler performs said processing said program schedule;

distribution code segment for distributing said task to a slave task scheduler;

second processing code segment for processing said task to create a command suitable for a

- 10 media server wherein said slave task scheduler performs said processing said task;

sending code segment for sending said command to said media server to retrieve data from said media server;

retrieving code segment for retrieving data from said media server in accordance with said command;

- 15 output code segment for outputting said retrieved data.

29. A computer program embodied on computer-readable medium for controlling a media server to output data at a predetermined time comprising:
- schedule creation code segment for creating a schedule for a service wherein said schedule is comprised of schedule data;
- 5 storage code segment for storing said schedule data in a data model wherein said data model is adapted for a service;
- first processing code segment for processing said data to create a task;
- distribution code segment for distributing said task to a slave task scheduler;
- second processing code segment for processing said task and sending a command to a media server at a predetermined time.
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30. A computer program embodied on a computer-readable medium for scheduling multimedia programs comprising:
- event creation code segment for creating a primary event in a schedule wherein said creating uses a graphical user interface;
- 5 selection code segment for selecting a multimedia event to associate with said primary event wherein said selecting uses said graphical user interface;
- association code segment for associating said multimedia event with said primary event in said schedule wherein said associating uses said graphical user interface;
- transforming code segment for transforming said schedule into at least one task wherein said transforming creates a task for a media server to provide said associated multimedia event;
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- distribution code segment for distributing said task to said media server;
- execution code segment for executing said task at a predetermined time.

31. A computer program embodied on a computer-readable medium for scheduling multimedia events comprising:

creation code segment for creating a primary event in a schedule;

association code segment for associating a supporting event with said primary event in said

5 schedule;

first processing code segment for processing said schedule and creating at least one task

from said supporting event;

distribution code segment for distributing said task to a media server wherein said media

server accesses multimedia corresponding to said supporting event;

10 first processing code segment for processing said task and initiating at a predetermined time said media server to access and distribute said multimedia.

32. A computer program embodied on a computer-readable medium for scheduling related events comprising:

creating code segment for creating a primary event in a schedule;

associating code segment for associating a supporting event with said primary event

5 wherein said supporting event is a multimedia event that will be distributed at a predetermined time and does not use cue tones;

first translation code segment for translating said supporting event into at least one task by a master scheduler;

distribution code segment for distributing said task to a media server;

10 second translation code segment for translating said task into at least one device specific command for a bit-pump at a predetermined time;

sending code segment for sending said device specific command to said bit-pump;

processing code segment for processing said device specific command by said bit-pump and distributing requested data corresponding to said supporting event.

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